

Title (en)

Contact to gallium-arsenide and method of forming such.

Title (de)

Kontakt auf Galliumarsenid und dessen Herstellungsverfahren.

Title (fr)

Contact sur de l'arseniure de gallium et procédé pour sa fabrication.

Publication

EP 0282781 A1 19880921 (EN)

Application

EP 88102732 A 19880224

Priority

US 2633787 A 19870316

Abstract (en)

A thermally stable low resistance ohmic contact to a gallium and arsenic containing substrate is fabricated using a layer of refractory material, and a layer of indium and a metal which forms thermally stable intermetallic compounds and/or single solid phase with indium. In forming the contact, a layer of indium is sandwiched between two layers of said metal, the sandwiched array of layers sitting on the substrate with the refractory material layer on top to form a stratified structure. The stratified structure is heated to form at least one intermetallic compound of said metal and indium and/or a single solid phase of indium and said metal and an InGaAs layer at the metal/semiconductor interface. Also a uniform fine distribution of InGaAs layer at the metal/gallium arsenide interface is formed which results in low contact resistance.

IPC 1-7

H01L 21/285; **H01L 29/40**

IPC 8 full level

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CPC (source: EP US)

H01L 21/28575 (2013.01 - EP US); **H01L 29/452** (2013.01 - EP US); **H01L 2924/10329** (2013.01 - EP US)

Citation (search report)

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